

INFORMATION REPORT

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COUNTRY East Germany

SUBJECT Metal Ceramic Tube Production at Werk fuer
Fermeliewesen HF

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THIS IS UNEVALUATED INFORMATION

1. The production of metal ceramic tubes by the Werk fuer Fermelie-
wesen HF met with great difficulties in 1952, the scrap ratio reaching
80 to 90 percent of the total production in some months. While, in May
1952, 600 tubes could be delivered, the total June production was lost.
At the suggestion of Kosakov (fnu), Siupka (fnu), head of the metal
ceramic tube department, was replaced by one Ruhnke (fnu). After
two months, Ruhnke found out that the production difficulties were mainly
caused by the interior quality of the metal ceramic components.

Investigations showed
that the Hescho plant had exhausted the stocks of zirconium oxyde dating
from HW II and was using zirconium silicates produced by Porzellan-
fabrik Bautzen, and also replaced 50 percent of natural steatite by synthe-
tic steatite, with the result that soldering pins got loose or loose.
As the Hescho plant was not in a position to produce metal ceramic
parts of the old quality, this production was taken over by Werk HF.
Although the Werk HF succeeded in beginning production, the produc-
tion loss could not be made good up to late 1952. Only the production quota
for the CD 11 and LD 12 type tubes could be fulfilled, because sufficient
quantities of suitable metal ceramic components were still available
for these types from earlier Hescho deliveries. Since the total 1952 pro-
duction plan for metal ceramic tubes was only 65 percent filled, with
16,500 tubes delivered by 31 December 1952, it was extended until 31 January
1953. The plant had to pay a penalty of 1,000,000 eastmarks for not having
delivered the metal ceramic tubes on time. Dr. Mueller, the
manager of the plant, was severely reprimanded for not having filled
the production plan, as the tubes involved were scheduled to be delivered
to the USSR. Dr. Mueller tried to place the blame on employees living in
West Berlin and ordered them dismissed.

2. Deliveries of the urgently needed zirconium oxyde were expected from the
Chemisches Kombinat Bitterfeld, where a small quantity of this material
was produced from Baltic Sea sand in late 1952. In October 1952, 20 kg of
nickel 8 pipes could be procured from the Horaeus firm in Hanau on the
Main River.

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3. In late 1952 and early 1953, the average scrap ratio of LD 7, LD 9, LD 11, and LD 12 type tubes amounted to 70, 65, 60, and 60 percent respectively. Most of the tubes rejected had leakages.
4. In November 1952, new acceptance conditions were introduced for metal ceramic tubes by order of the Soviets. The electrical specifications were simplified, while mechanical specifications were made more rigid.
5. Since December 1952, the LD 11 and LD 12 type tubes have been equipped with L-cathodes which considerably increased their output and service life. The first trials to equip the LD 9 tube with L-cathodes were started at the same time. The LD 7 tube was probably scheduled to have no L-cathodes as this type of cathodes was rather unsuitable for keying operation. The L-cathodes were made of tungsten, because rhenium was available only for experiments, and the production of rhenium in Freiberg was still very small.
6. A production of 60,000 metal ceramic tubes, i.e. 55,000 scheduled for export to the USSR and 5,000 scheduled to be delivered to the Sachsenwerk Radeberg, was planned for 1953. On 1 January 1953, an export order for only 33,000 tubes was received. Werk HF requested to be supplied with thorium, zirconium oxide, and special steel bands to execute the Soviet order, but received no answer until April, when the export order was reduced from 33,000 to 10,000 tubes, according to a letter by DBZ. Since 12,000 tubes had already been delivered in the first quarter of the year, the Soviet acceptance agents were instructed not to accept any more tubes. While Werk HF did not acknowledge the cancellation of the order, it had to reduce its production to 2,500 tubes per month in the second quarter of 1953. It was informed by DIA that no further export orders for metal ceramic tubes were to be expected.
7. In February, the production of the works was considerably hampered by lack of zirconium oxide, thorium getter, electrolytical copper sheet, and cathode nickel. In March, considerable quantities of molybdenum sheets, 0.2 to 0.5 mm thick, were received from Switzerland for the production of metal ceramic tubes and television tubes. A total of 350 kg of zirconium oxide arrived from the Netherlands in April.
1. Comment. Another report indicated that Slupka (fnu) after being released from the management of the metal ceramic tube department was attached to the testing plant for transmitting tubes headed by Dr. Ignatz Ladurner.

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